

REMARKS/ARGUMENTS

Claims 1-14 and 19-26 are pending in this application. By this Amendment, claims 15-18 are canceled without prejudice or disclaimer, claims 1-2, 5 and 10-14 are amended and claims 19-26 are added. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Applicant sincerely acknowledges the Office Action's indication that claims 2-14 define patentable subject matter. However, for at least the following reasons, Applicant respectfully submits that all pending claims define patentable subject matter.

A. Statement of the Substance of the Interview. Applicant gratefully acknowledges the courtesies extended by Examiner Desta. The substance of the August 11, 2003 interview is incorporated in the following remarks.

During the interview, the statutory period for response to the Office Action was agreed to be three (3) months as later indicated by the August 15, 2003 (Supplemental) Office Action. No exhibit was presented or demonstration conducted during the interview. Applicant respectfully requests that this paper be included in the record for purposes of satisfying the requirements under MPEP §713.04.

B. The Office Action objects to the title for not being descriptive. By this Amendment, the title is amended to "POWER SAVING METHOD AND APPARATUS FOR A PORTABLE APPLIANCE (AS AMENDED)." Applicant respectfully submits that the

above amendments obviate the grounds for the objection. Withdrawal of the objection to the title is respectfully requested.

C. The Office Action rejects claim 1 under 35 U.S.C. §102(b) over U.S. Patent No. 5,737,616 to Watanabe. The rejection is respectfully traversed.

With respect to claim 1, Applicant respectfully submits that Watanabe fails to disclose every claimed feature as required under §102. For example, Watanabe fails to disclose at least features of measuring remaining capacity of a battery and frequency of use by the devices in the appliance and selecting devices on the user set-up menu to be disconnected from the battery power and combinations thereof as recited in claim 1. Further, Applicant respectfully submits Watanabe does not teach or suggest any modification to its disclosure that would result in at least a feature of measuring remaining capacity of a battery and frequency of use of the devices in the appliance and selecting devices on the user set-up menu to be disconnected from the battery power and combinations thereof as recited in claim 1.

For at least the reasons set forth above, Applicant respectfully submits claim 1 defines patentable subject matter. Withdrawal of the rejection of claim 1 under 35 U.S.C. §102 is respectfully requested.

D. Claims 19-26 are newly added by this Amendment and believed to be in condition for allowance.

Serial No. 09/994,840
Reply to Office Action of August 15, 2003

Docket No. P-0284


CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **Carl R. Wesolowski**, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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Detailed Action

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Power Saving Method and Apparatus for a Portable Appliance"

Claim rejection – 35 U.S.C. 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by Watanabe (U.S. 5,737,616).

In reference to claim 1: Watanabe teaches a power saving method in an appliance (devices) (see Watanabe, Fig. 1 and column 1, lines 18-23). The method includes:

➤ Inputting power management data (power supply mode) into a user

setup menu (it is inherent that most operating system have some sort of user setup menu for power setting that can be shown on the computer's

monitor) on a display associated with the appliance (computer) (see

Watanabe, column 5, lines 15-43);

- Outputting control command to a micro-controller based on the power management data (see Watanabe, Fig. 1, signal from CPU, 11 to power supply control register, 14); and
- Executing the power control command of the micro-controller (see Watanabe, Fig. 1, CPU, 11 executes the power control command) where the execution includes disconnecting battery power from the selected one of plurality devices in the appliance (see Watanabe, Fig 1, block 2 and column 6, lines 14-31).

Claim Objection

4. Claims 2-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowable Subject Matter

5. Claims 5-14 are allowable over the prior art of record.

In reference to claim 5: Watanabe teaches a power saving method in a portable appliance (see Watanabe, Abstract). The method includes:

- Checking respective devices in the portable appliance (see Watanabe, Fig. 1 and column 4, lines 14-34);

However Watanabe does not teach:

- Displaying checked information for a respective device in a user set up menu when the power level drops below a certain threshold;
- Outputting a control command to a micro-controller based on power saving data; and
- Executing power saving program in accordance with a control command from the micro-controller.

Whereas; the claimed invention includes all the features noted above and further provides a means for checking the remaining capacity of the battery with respect to each installed portable appliance and frequency of use of the respective devices.

Other prior art made of record:

- Tanaka (Power Semiconductor Symposium Article, "Environment Friendly Revolution in Home Appliances") teaches an overview of conservation of electrical energy for home appliances (see Tanaka, page 91, Abstract and Introduction). The technology allows optimal energy conservation on the appliance level, but does not further monitor the power consumption of the

devices with in the home appliance, such as timers, electromechanical devices and other electrical devices.

- Knoblock et al. (U.S. Patent 5,930,779) teaches a web based system and method to automate storage of power plant data and calculation of battery reserves (see Knoblock et al., Abstract). The power distribution and monitoring is done per consumer equipment. The system has a capability to switch of individual appliances at customer site without being physically present.
- Jamieson et al. (U.S. Patent 5,196,781) teaches method and apparatus for power control of solar powered display devices (see Jamieson et al., Abstract). The method includes powering the devices at lower light intensity and when no solar energy is available the system would switch to an economical auxiliary battery. The system has a witching capability during low power drop out but does not constitute a functional representation of the claimed invention.

The remaining claims are dependent upon claim 5 and contain further limitations.

Response to Applicant's Traversal of Restriction

6. Applicant's election with traverse of claims 1-14 (Group I) in Paper No. 7 is acknowledged. The traversal is on the ground(s) that the designated inventions is

sufficiently related that a thorough search for the subject matter of each of the designated inventions (Groups I and II) would encompass a search for the subject matter of the remaining designated invention (Group II, claims 15-18). However, this is not found persuasive because inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require that particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP 806.05 (C)).

In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the two inventions can have distinct industrial applicability:

- Claims 1-14 are drawn to power saving method of a portable appliance, classified as 702/57 (e.g. a laptop computer with staged screen saving and power shut off modes), and
- Claims 15-18 are drawn to power saving apparatus in an appliance classified as 318/139 (e.g. power management in gas/electric hybrid engines).

Claims 15-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected subject matter, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election)

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requirement in Paper No. 6. The requirement is still deemed proper and is therefore made FINAL.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elias Desta whose telephone number is (703)-305-3840. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (703)-308-1677. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-308-5841 for regular communications and (703)-308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-1782.

Elias Desta
Examiner
Art Unit 2857

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July 23, 2003


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-14 are drawn to power saving method of a portable appliance, classified 702/57.
- II. Claims 15-18 are drawn to power saving apparatus in an appliance class/subclass: 318/139.

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the two inventions can have distinct industrial applicability. The subcombination has separate utility such as:

Group I: claims 1-14 are directed to inputting power management data, outputting control commands, and executing power control functions in a portable device applications; these features can be practiced in areas where energy saving is required, for instance laptop computer with staged screen saving and power shut off modes.

Group II: 15-18 are directed to AC/DC converter, DC/DC converter, Micro-controller with user power management data entry and a plurality of switches, which are widely used in an air-conditioning system, computer servers and power management in gas/electric hybrid engine units.

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Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

A telephone call was made to Mr. Daniel Y.J Kim on June 4, 2003 to request an oral election to the above restriction requirement, but did not result in an election being made.

Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elias Desta whose telephone number is (703)-305-3840. The examiner can normally be reached on M-Thu (8:00-6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S Hoff can be reached on (703)-308-1677. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-308-5841 for regular communications and (703)-308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-1782.

Elias Desta
Examiner

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June 5, 2003

